

Materials List for:

The MODS method for diagnosis of tuberculosis and multidrug resistant tuberculosis

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Materials

| Name | Type | Company | Catalog Number | Comments |
|---|------------|-------------------|----------------|--|
| Refrigerator/ freezer | Equipment | | | to store pre-prepared broth and antibiotic stocks |
| Vortex | Equipment | | | to aid sputum decontamination |
| Centrifuge | Equipment | | | for sputum concentration; capable of reaching 3000 g; d-s not need to be refrigerated, but MUST be biosafe (buckets can be sealed) |
| Incubator (37 degree C) | Equipment | | | for culture; need not be CO2 enriched |
| Inverted light microscope | Microscope | | | to read MODS plates |
| Autoclave | Equipment | | | to sterilize media, PBS and used plates |
| Balance | Equipment | | | to weigh isoniazid, rifampicin and NALC |
| Middlebrook 7H9 broth (Difco) | Reagent | Fisher Scientific | DF0713-17-9 | 500gr/bottle; culture media base |
| Casitone (pancreatic digest casein) | Reagent | Fisher Scientific | DF0259#17#9 | 500gr/bottle; culture media base |
| Glycerol (glycerin) lyophilized | Reagent | Sigma-Aldrich | G#33#500 | 500ml/bottle; culture media base |
| PANTA (Antibiotic mixture lyophilized BD) | Reagent | Fisher Scientific | B4345114 | 6 bottles/pack; antibiotic media supplement |
| OADC (Middlebrook OADC enrichment BD) | Reagent | Fisher Scientific | B11886 | 10 x 20ml/pack; nutritional media supplement |
| Dimethyl sulphoxide (Hibri-Max) | Reagent | Sigma-Aldrich | D-2650 | 100ml/bottle; to prepare rifampicin stock |
| Antibiotic stocks: isoniazid | Reagent | Sigma-Aldrich | I-3377 | 50gr/bottle; direct susceptibility testing |
| Antibiotic stocks: rifampicin | Reagent | Sigma-Aldrich | R-3501 | 1gr/bottle; direct susceptibility testing |
| Sodium hydroxide (pellets) | Reagent | Sigma-Aldrich | 221465 | 500gr/bottle; sputum decontamination |
| Sodium citrate (trisodium salt dihydrate) | Reagent | Sigma-Aldrich | S-4641 | 500gr/bottle; sputum decontamination |
| N-acetyl-L-cysteine | Reagent | Sigma-Aldrich | A-7250 | 50gr/bottle; sputum decontamination |

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|--|------------|-------------------|-------------|--|
| Potassium Phosphate Monobasic crystal. KH ₂ PO ₄ | Reagent | Sigma-Aldrich | P0662 | 500gr/bottle; sputum decontamination |
| Sodium Phosphate Dibasic, anhydrous. Na ₂ HPO ₄ | Reagent | Sigma-Aldrich | S0876 | 500gr/bottle; sputum decontamination |
| Sodium hypochlorite | Reagent | household bleach | | to discard contaminated waste |
| 15ml centrifuge tubes (polypropylene 15ml Falcon 35#2096) | Consumable | Fisher Scientific | 14#959#49B | 500ea/case; for sputum decontamination and concentration |
| 24 well plates (Plates Tissue 24 wells BD Falcon 35#3047) | Consumable | Fisher Scientific | 08-772-1 | 50 plates/case; for culture and reading |
| Sealable polythene bags 6 X 6 " (ziplock) | Consumable | | | for biosecurity to contain 24 well plate |
| Glass tubes with lid (16 x 100mm and 18 x 145mm) | Consumable | VWR international | 47729-583 | 500 tubes/case; to store aliquots of prepared broth |
| Screw cap microcentrifuge tubes (1.5ml) | Consumable | Fisher Scientific | 05#669#22 | 1000ea/case; to store aliquots of antibiotic stocks |
| 0.22µm filters (aqueous solvents) Syringe filter Millex blue | Consumable | Fisher Scientific | SLGL 025 OS | 50 units/case; to filter antibiotic stocks |
| 0.22µm filters (organic solvents) Syringe filter Millex yellow | Consumable | Fisher Scientific | SLGV 033 RS | 50 units/case; to filter antibiotic stocks |
| Disposable Pasteur pipettes borosilicate glass 9" | Consumable | Fisher Scientific | 13#678#20C | 720ea/case; to mix PANTA with media mix |
| Aerosol barrier tips 1000# 1300µl | Consumable | Fisher Scientific | 02#707#51 | 1000ea/pk; to dispense media into plate |
| USA Scientific Tips One 1# 200µl yellow tips | Consumable | Fisher Scientific | 1111#0006 | 1000 tips/bag; to dilute antibiotic stocks |